Amendments to the Specification:

Please replace the paragraph beginning at page 5, line 13 with the following rewritten paragraph:

The present method and system determines the bandwidth between any two nodes in such a network by taking various delay measurements from the remote monitor host 60 to the end points 70 and 80 of the hop for varying packet sizes. The resulting data is then statistically analyzed to provide the result. For example, in remotely measuring available bandwidth of a link L3 located on Internet with end-point nodes 70 and 80 respectively being the nodes of the link L3, the IP address of each node 70 and 80 must be known. Packets of data are sent from the remote host to each node 70 and 80. The data consists of different packet sizes resulting in varying corresponding delay. It is also assumed that the data packets first reach node 70 and then node 80. In order to measure delay an Internet Control Management Protocol (ICMP) Echo Request Packet is sent to node 70 and the remote host awaits for the ICMP Echo Reply Packet. Transmission and reception of Echo Request and Echo Reply is timed and the difference gives us the round trip delay. Similarly, the round trip delay for node 80 is measured. Both nodes 70 and 80 must be ICMP enabled, i.e., each must accept ICMP packets.

Please replace the paragraph beginning at page 11, line 25, with the following rewritten paragraph:

In estimating γ at the beginning and periodically thereafter, it is necessary to collect some delay data during a short time period in which we remotely inject the link with some generated traffic. As illustrated in step 350 of Figure 4, a known quantity of traffic is generated at various rates r_i, i = 1,..,m, (step 360 of Figure 4) and injected to the link within a short period of time to the network when the background traffic is relatively stable. Let the available bandwidth at this time be ~~is~~ some unknown quantity with mean A_0. The injected traffic may be generated by a traffic generator 260 (Fig. 5) which must be on a node physically separate from the remote host. The injected traffic rate r_i is also measured in the same unit as A_0 – for example in megabits per second. The injection of traffic should be repeated K times within short periods of time. From the methodology described earlier $\alpha(t)$ can be estimated. We can use estimated values $\alpha(t)$ of and model

$$\alpha_k(t) = \gamma\left(\frac{C}{A_0 - r_k} - 1\right), \quad k=1,\ldots,K \tag{14}$$

to estimate γ and A_0 by a nonlinear regression technique, as in step 370. So

$$s^* = \frac{\hat{\gamma} \cdot C}{8 \cdot 10^{-6}}. \tag{15}$$

Replace s^* in Equation (7) by (12) to obtain

$$\hat{A}(t) = \frac{C}{\hat{\alpha}(t)/\hat{\gamma} + 1} \tag{16}$$

which allows us to estimate available bandwidth $\hat{A}(t)$ in step 390 using $\hat{\alpha}(t)$ estimated using equation (8) in step 380 and γ estimated above in step 370.